ignition

USER MANUAL

WRX-1

Single DMX universe receiver

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1. Safety instructions

- This device is suitable for indoor use only.
- All modifications to the device will void the warranty.
- Repairs are to carry out by skilled personnel only.
- Use only fuses of the same type and original parts as spare parts.
- Protect the unit from rain and humidity to avoid fire and electric shocks.
- Make sure to unplug the power supply before opening the housing.

1.1. FOR SAFE AND EFFICIENT OPERATION

Be careful with heat and extreme temperature

Avoid exposing it to direct rays of the sun or near a heating appliance.

Not put it in a temperature bellow 32°F /0°C, or exceeding 131°F /55°C.

Keep away from humidity, water and dust

Do not place the set in a location with high humidity or lots of dust.

Containers with water should not be placed on the set.

Keep away from sources of hum and noise

Such as transformer motor, tuner, TV set and amplifier.

To avoid placing on un-stable location

Select a level and stable location to avoid vibration.

Do not use chemicals or volatile liquids for cleaning

Use a clean dry cloth to wipe off the dust, or a wet soft cloth for stubborn dirt.

If out of work, contact sales agency immediately

Any troubles arose, remove the power plug soon, and contact with an engineer for repairing, do not open the cabinet by yourself, it might result a danger of electric shock.

Take care with the power cable

Never pull the power cable to remove the plug from the receptacle, be sure to hold the plug.

When not using the device for an extended period of time, be sure to disconnect the plug from the receptacle.

Important: Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems. Make sure the electrical connection is carried out by qualified personnel. All electrical and mechanical connections have to be carried out according to the European safety standards.

2. Description

The WRX-1 indoor receiver is a user-friendly single receiver with “One-Button-2-Go“ technology. The WRX-1 receives all 512 channels DMX (one universe) wireless through the W-DMX technology that is proven to be safe, reliable and easy to use.

WRX-1 can be used for both Multicasting and Point-to-Point systems. In a Multicast system, each DMX 512 device has its own WRX-1, which negates the need for DMX 512 cable as the entire system is wireless. In a Point-to-Point situation, W-DMX is used to “bridge” a distance.

There can of course be a combination of these two modes, for example a WSX-1 connected to the console can transmit to 6 units of WRX-1, and each of the WRX-1 has a fixture connected that is daisychained to several other units by cable on either same or different DMX addresses.

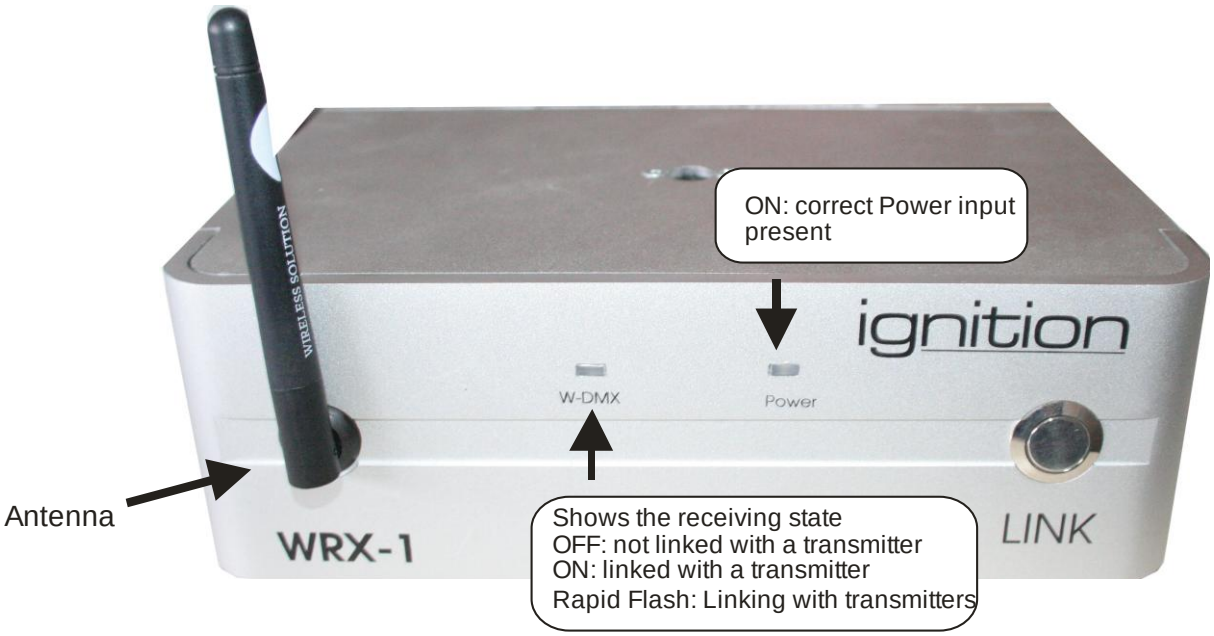
The WRX-1 has a built in universal power supply with 90-250 V guaranteed worldwide use without problems.

All WRX-1 units are delivered with multipurpose brackets for easy mounting and rigging, as well as standard 2 dBI rubber whip antenna. A multitude of other antenna options are available to increase the standard transmission range.

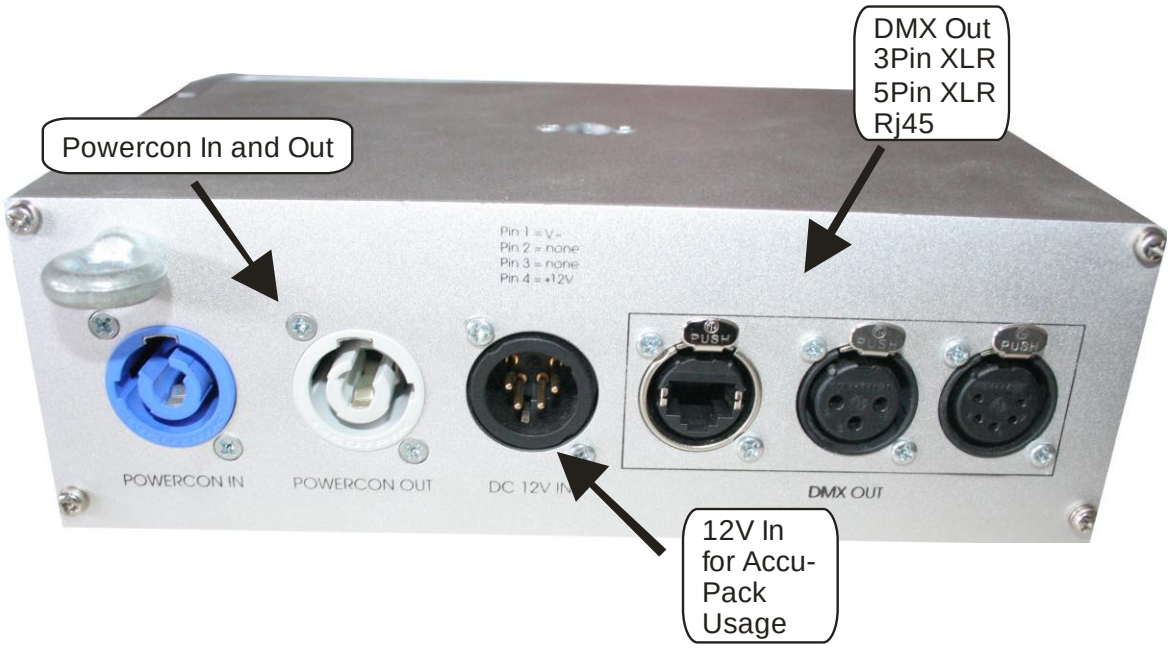
All W-DMX products use the license free 2.45 GHz ISM band, and are certified for use in the United States, Canada, Japan, and all European Union countries.

The WRX-1 uses FHSS, Frequency Hopping Spread Spectrum, along with a number of other techniques to avoid interference and create a very reliable wireless link.

3. Front panel details



4. Rear panel details



5. Technical data

DMX INTERFACE	
Full compliance with USITT DMX-512 (1990) & 512-A standards	
Maximum number of transceivers on a single bus: 32 (compliant with the EIA/TIA RS-485 standard)	
Data rate	250kbps (slew rate limited to minimize EMI)
Electrostatic discharge protection	+/- 15 kV
DMX frame rate and frame size	Auto sensing
Frame rate	1 (min) to 44 (max) frames per second
Frame size	1 (min) to 512 (max) channels
Recovery from loss of DMX input or radio link	Less than 1 second
Loss of DMX input or radio link: After one second (if there is no resumption), the DMX output will cease to transmit and go into a high impedance mode	

Power characteristics	
High voltage input	90-260 VAC
Low voltage input	12VDC
Average current (transmit mode)	200 mA @ 12VDC

RF characteristics	
W-DMX uses Adaptive Frequency Hopping Spread Spectrum (AFHSS) and changes frequency every 910 us	
Tested link range 450m (Low power EU mode using standard antenna in an urban area)	
Operational frequency range	2402-2479MHz (ISM band)
EU/ASIA RF output power	20dBm or 100mW
FCC RF output power	25dBm or 275mW
Channel bandwidth	1 MHz
Sensitivity at 0.1% Packet Error Rate	95dBm

Approvals
FCC: 15.247&68 Class B; Canada ICES 003; Japan ARIB STD-T66
CE; EN 301 489-1; 301 489-17; EN 300-328-1; EN 300-328; EN 609 50

Enclosure	
Diecast aluminium casing	
Operating temp range	0°C to +55°C (32°F to 131°F)
Dimensions (W x H x D)	219 x 45 x 131 mm (8.6“ x 1.8“ x 5.2“)
Weight	1005 g (35.45 oz)

Connectors
N-type female antenna connector, N-RP-SMA adaptor included
2 Neutrik XLR 5-pin gold plated DMX connectors
2 RJ45, DMX over Cat5 cable links
1 DC input, pluggable terminal strip, Phonix MSTB 2,5
1 AC input, IEC-6C

6. Installation

1. Attach the antenna to the connector on the front panel. If using the standard antenna, use also the supplied adaptor.
2. Link the DMX source to the DMX out socket on the rear panel.
3. Connect power to the unit either via the Powercon input (90 to 250 VAC) or the DC power input (12 VDC). If using the AC input, fit an appropriate mains plug to the supplied power cord – this should be carried out only by a qualified electrician.

6.1. To link with a transmitter

1. Ensure that this receiver is not linked with any other transmitter (**W-DMX** indicators should be OFF)
2. On the transmitter unit, press and release the **LINK** button. The transmitter will scan for all unlinked receivers for a period of ten seconds.
3. If successful, the receiver's **W-DMX** indicator will go ON.

6.2. To unlink from a transmitter

1. On the receiver, press and hold the **LINK** button until the **W-DMX** indicator goes OFF. The receiver is now unlinked.

7. Trussholders mounting

- Use a standard Truss clamp to be inserted in the screw hole on top of the box.
- Make sure that the installation is safe and secure.

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